

PATENT SPECIFICATION (11)

1551 487

1551 487

(21) Application No. 3110/77 (22) Filed 26 Jan. 1977 (19)
 (31) Convention Application No. 2 613 737
 (32) Filed 31 March 1976 in
 (33) Fed. Rep. of Germany (DE)
 (44) Complete Specification published 30 Aug. 1979
 (51) INT. CL.² B08B 15/02
 (52) Index at acceptance

F4V B2A B3D B4E B4F



(54) A COOKER HOOD AIR EXTRACTION APPLIANCE

(71) We, BOSCH-SIEMENS HAUSGERATE GMBH, seated in Stuttgart, German Federal Republic, the address for communication being 8000 München 2, Prannerstrasse 8, 5 German Federal Republic, a limited liability company organised under the laws of the German Federal Republic, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method 10 by which it is to be performed, to be particularly described in and by the following statement:—

The present invention relates to a cooker hood air extraction appliance.

15 In known appliances, it is usual to assemble the appliance casing from several individual parts, namely side walls, front wall, bottom and roof which are releasably or non-releasably connected with one 20 another either with the aid of a carrying frame or else as a self-supporting construction. Furthermore, it is usual in known appliances to insert into the casing a separate volute housing for an air impelling 25 device.

The casing, consisting in the known appliances of many individual parts, represents an appreciable cost factor because of the considerable effort in assembly operations 30 and the devices required for the assembly. In mass production, expensive administrative measures, such as inventory and transport of the individual parts, are also necessary. In addition, in the case of known 35 casings assembled from individual parts, special constructional measures are necessary for their stiffening, which gives rise to further costs.

According to the present invention there 40 is provided a cooker hood air extraction appliance comprising a casing which is formed as a one-piece component and which includes a wall portion which separates an upper cavity containing air impelling means 45 from a lower cavity containing air filtering means, the upper and lower cavities being in air flow communication through an opening in the wall.

Due to the casing having been formed from a single piece of material expensive 50 assembly operations, otherwise necessary for assembling a casing from several parts, are avoided and appreciable savings are made in the assembly of the appliance. At the same time, costs arising in mass production can be substantially reduced by this construction. In addition, with a moulded casing, the rigidity thereof is appreciably improved. In this manner a saving in raw 55 material, and thus a reduction in weight of 60 the casing, can be achieved.

Constructing the appliance with an upper open cavity contributes substantially to simplification of the construction and the assembly of the appliance, and considerably 65 increases the strength and torsional stiffness of the casing.

The casing may be formed from a plate by deep drawing.

An embodiment of the present invention 70 will now be more particularly described by way of example with reference to the accompanying drawings, in which:

Fig. 1 is a schematic longitudinal section 75 of a cooker hood air extraction appliance embodying the invention;

Figs. 2 and 3 are perspective views of the 80 appliance from below and from above, respectively; and

Fig. 4 is a plan view of the appliance.

Referring now to the drawings, there is shown a cooker hood air extraction appliance 10 for mounting above a kitchen stove or the like and provided with a casing 11 which is open at its underside and which has substantially rectangular profiles with a rounded-off front portion. The hood 10 is equipped in the usual manner with filter equipment, such as an activated carbon filter 12 and a fat filter of a non-woven fabric 13, arranged in the interior of the casing 11. A metal sieve plate 14, serving as a carrier for the non-woven fabric 13 and bent upwardly in its forward section, is withdrawably inserted into an open lower cavity of 85 the casing 11 and closes off the opening of 90 the casing 11 and closes off the opening of 95 the casing 11 and closes off the opening of

this cavity downwardly with the exception of the rounded-off front portion of the casing.

5 The casing 11 is provided with wall portions 15, comprising a roof portion of the casing, at least partially defining a volute air guiding device. At the underside of the wall portion 15 is disposed a carrier 16 for supporting the rear section of the activated 10 carbon filter 12. A fan impeller 17, which is driven by an electric motor and which serves as an air impelling device for the fume extraction hood, is disposed in the centre of the air guiding device.

15 A lid 18 is provided at its front portion with ventilation slots 19 and at its rear portion with a circular aperture 20 provided with a sleeve 21 for connection to an exhaust pipe (not shown). To operate the hood 10 for the circulation of air, the aperture is closed off by a plate 22 (Figs. 3 and 4) which may be cemented over the aperture and air is sucked up from the room, purified by the filters 12, 13 and impelled by the fan 25 impeller 14 through the slots 19 back into room. To operate the hood 10 for extraction of air the aperture is connected to an exhaust pipe, the slots 19 are closed by means not shown and air sucked up from the room is impelled through the aperture 20.

The rounded-off front portion of the casing 11 partially defines an air inlet 23, in which is arranged an incandescent bulb 24, serving as illuminating means, and other different electrical installations, such as a switching and regulating device 25. The switching and regulating device 25 is provided with a setting knob 26 which protrudes 40 out from the casing 11 at an easily accessible place at the front side.

Stamped-out ribs 27, which serve for the placing of the casing against a wall carrying the air extraction hood 10, are disposed at 45 the rear side of the casing. As is evident from Figs. 1 and 2, the casing 11 has at its underside a rabbet-like rim 28, which is bent over inwardly and which serves as stiffening for the casing and as a support 50 for incorporated parts, for example the metal sieve plate 14.

The casing 11 may be produced by deep-drawing a sheet metal plate. In that case, the opposed rearward wall portions, insofar 55 as they may be concealed by adjacent fittings in a built-in kitchen during the later building-in of the air extraction hood 10, have an incline appropriate to the deep-drawing process i.e. they are downwardly divergent 60 relative to each other. The front portion of the casing 11, constructed as an air inlet 23 has opposed side portions which are substantially vertical so that they bear flush against the side walls of adjacent fittings.

65 The rounding-off of the forward portion

of the casing 11 is particularly favourable, since the risk of injury by knocking against this forward portion, when it protrudes over a stove, may be substantially reduced.

In place of the illustrated and described 70 casing 11 manufactured by a deep-drawing process from sheet metal or synthetic material, it is possible to manufacture a casing of that kind from, for example, metal or synthetic material by a moulding process. 75

In the appliance hereinbefore described, the casing has a particularly simple construction and can be manufactured economically, so that the total cost of an 80 appliance equipped with a casing of that kind is substantially reduced.

WHAT WE CLAIM IS:—

1. A cooker hood air extraction appliance comprising a casing which is formed 85 as a one-piece component and which includes a wall portion which separates an upper cavity containing air impelling means from a lower cavity containing air filtering means, the upper and lower cavities being 90 in air flow communication through an opening in the wall portion.

2. An appliance as claimed in claim 1, further comprising at least one electrical component arranged in the casing. 95

3. An appliance as claimed in claim 2, comprising a switching and regulating device arranged in the casing.

4. An appliance as claimed in either claim 2 or claim 3, comprising lighting 100 means arranged in the casing.

5. An appliance as claimed in any one of the preceding claims, air guiding means being defined by at least a part of the upwardly facing surface of the wall portion. 105

6. An appliance as claimed in any one of the preceding claims, wherein the upper cavity is closable by a lid arranged on the casing.

7. An appliance as claimed in claim 6, 110 wherein the air impelling means comprises a fan drivably connected to a motor mounted on the lid.

8. An appliance as claimed in either claim 6 or claim 7, wherein the lid is provided with at least one of an air outlet aperture and air outlet slot means. 115

9. An appliance as claimed in any one of the preceding claims, wherein the casing has been formed by deep-drawing. 120

10. An appliance as claimed in any one of the preceding claims, wherein the casing comprises a rounded front portion, at least partially defining an air inlet.

11. An appliance as claimed in claim 125 10, wherein the lighting means is arranged in the air inlet.

12. An appliance as claimed in either claim 10 or claim 11, wherein in the region of the air inlet the casing is provided with 130

opposed side wall portions which each in
use extend substantially vertically, and in
a region behind the air inlet region the
casing is provided with opposed side wall
5 portions which mutually diverge down-
wardly.

13. An appliance as claimed in any one
of the preceding claims, wherein the casing
has a rim portion which has been folded
10 over inwardly of the casing.

14. A cooker hood air extraction appli-
ance substantially as hereinbefore described
with reference to the accompanying draw-
ings.

DR. WALTHER WOLFF & CO.,
6 Buckingham Gate,
London SW1E 6JP.
Chartered Patent Agents.
Agents for the Applicants.

Printed for Her Majesty's Stationery Office by Burgess & Son (Abingdon), Ltd.—1979.
Published at The Patent Office, 25 Southampton Buildings, London, WC2A 1AY,
from which copies may be obtained.

1551487 COMPLETE SPECIFICATION
2 SHEETS This drawing is a reproduction of
 the Original on a reduced scale
 Sheet 1

Fig. 1

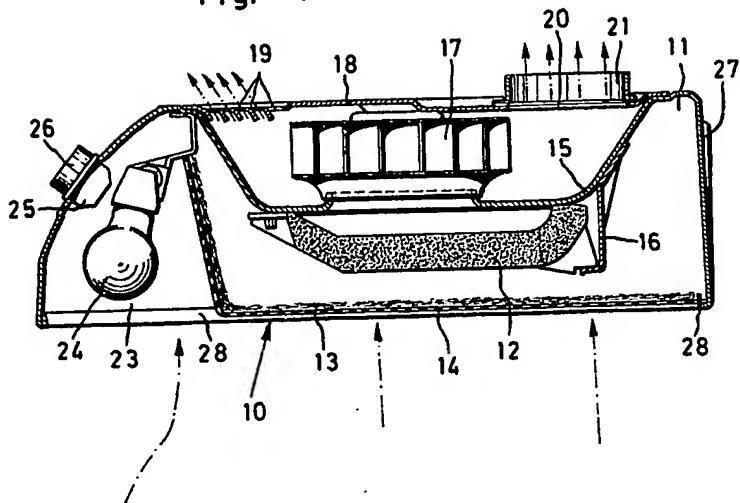
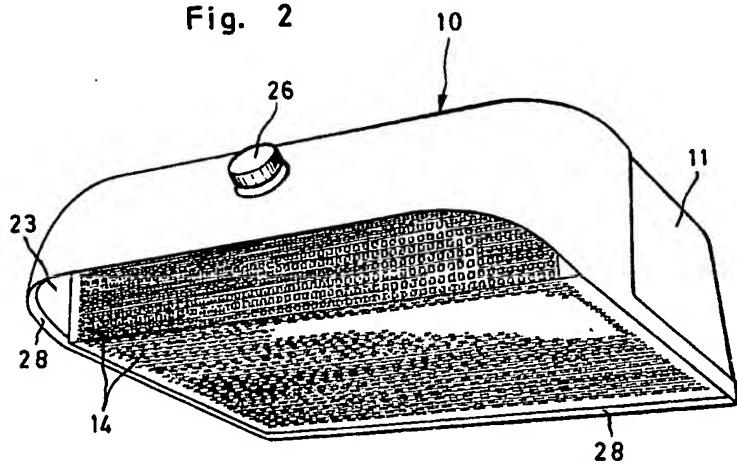


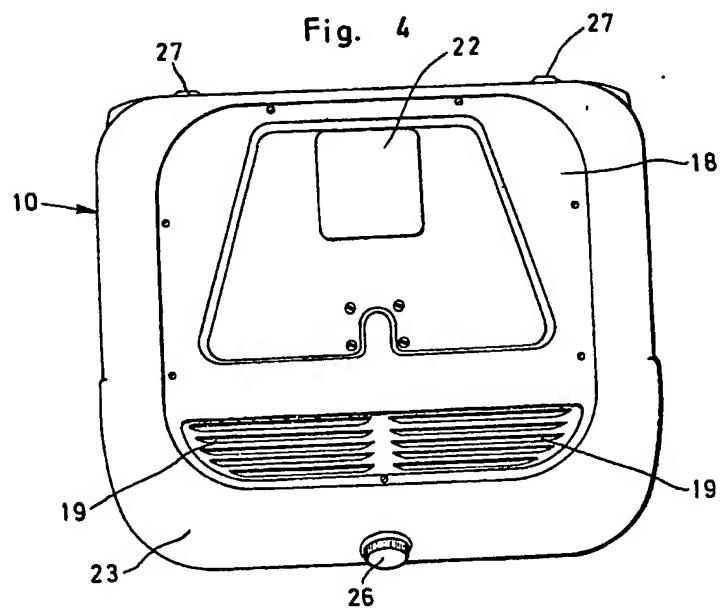
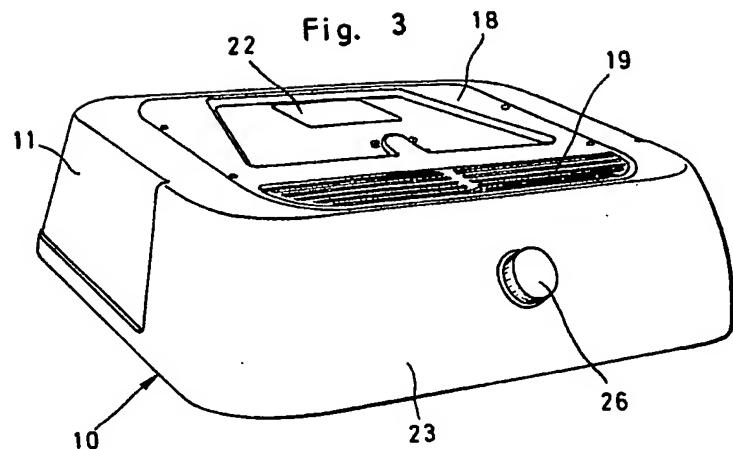
Fig. 2



1551487 COMPLETE SPECIFICATION

2 SHEETS

*This drawing is a reproduction of
the Original on a reduced scale
Sheet 2*



**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.